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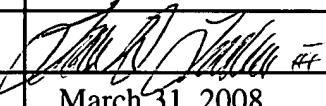
Application No.	10/714,182
Filing Date	November 14, 2003
First Named Inventor	John P. Christian
Art Unit	2622
Examiner Name	Yenke, Brian P.

Attorney Docket Number 42P17670

## ENCLOSURES (check all that apply)

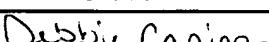
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## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Gordon R. Lindeen III, Reg. No. 33,192
Signature	
Date	March 31, 2008

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Our Docket No.: 42P17670

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

John P. Christian	)	Examiner: Yenke, Brian P.
Application No.: 10/714,182	)	Art Group: 2622
Filed: November 14, 2003	)	
For: Interchangeable Media Input	)	
Cartridge For Home Entertainment	)	

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REPLY BRIEF  
IN SUPPORT OF APPELLANT'S APPEAL  
TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Sir:

Applicant (hereinafter "Appellant") hereby submits this Reply Brief (hereinafter "Reply") in further support of its appeal from a final decision by the Examiner, mailed July 18, 2007 and in reply to the Examiner's Answer mailed February 21, 2008, in the above-referenced Application. Appellant respectfully requests consideration of this appeal by the Board of Patent Appeals and Interferences (hereinafter "Board") for allowance of the above-captioned patent application.

An oral hearing is not desired.

**A. Burns Does Not Lead a Person of Average Skill to a Tuner Cartridge**

**1. Burns Does Not Show a Tuning System**

The Examiner states that "Burns was incorporated to evidence the use of an address and data bus in a tuning system which could receive a variety of inputs." Unfortunately, Burns does not show a tuning system, nor is it clear that the system can receive a variety of inputs. Burns shows a decoder system. Demodulation is not mentioned, the signals instead arrive at the system as samples (Col. 5, lines 45-49). Burns does not say how or where the sampling and tuning is performed but this is obviously an external operation.

**2. Burns Cannot Anticipate the Present Invention**

The Examiner states that "It should be noted that if Burns disclosed the concept of modular tuner cartridges, the Burns reference would have anticipated the invention." The Examiner is most certainly aware that anticipation requires that each and every element of a claim be shown in a reference and that the claims of the present invention do not recite "modular tuner cartridge." Rather "modular" does not appear in the claims and other limitations do appear that specifically describe first and second bus connectors, *inter alia*.

**3. The References in Combination Do Not Render the Invention Obvious**

The Examiner responds that "one cannot show nonobviousness by attacking the references individually." To be considered together, the references must first be understood individually. Then the obvious combination must be considered.

Tajima shows independent modules with independent user interfaces, power switches, IR sensors, etc. Milnes and Burns show architectures that are configured at the factory and which are not changed. The Examiner has argued that it would be obvious to select the particular interfaces recited in the present claims, take them from Milnes and Burns and use them to modify Tajima. The Examiner provides no reason why except to obtain the present invention.

In Tajima, considering Fig. 4, there is an I/O terminal 41 for connecting e.g. a VCR (Videocassette Recorder). There are two lines coupled from the terminal 41 to a switch 22. The switch selects one of the five input video streams to apply to a graphic display functional block 51. It selects the corresponding one of the five audio streams to apply to an amplifier module 23 to drive a loudspeaker 61. The removable modules 21, 24, 25, 26 all provide a video and an audio stream to the same switch 22 as does the VCR. The video and audio streams from the modules are, accordingly, the same as would be provided by a VCR, an analog composite video signal and an unbalanced analog left and right audio signal. In addition, modules all receive the same antenna 71 signal which they use to tune a signal and produce the A/V output.

Figure 2 shows a module 21 with a bus 216 to receive the input antenna signal and provide the output video and audio signals. It would seem that there might also be a power connector that is not shown. There is no command and control shown, mentioned or applied on the bus 216. (Appellant notes for the record that Appellant did not know Japanese. Since the Examiner has only provided the reference in Japanese, Appellants base the entire understanding of the reference on a computer-generated translation provided by the Japanese Patent Office.)

Burns has not been addressed fully before, but the Examiner now relies principally on the data bus 116 and address bus 117 of Burns to combine with Tajima and

reject Claim 1. According to Burns, the data bus 116 carries channel encoded multimedia samples to the channel decoding functional units 102, 103, 104, 105 and other components 101, 115 and also receives channel decoded multimedia samples from the channel decoding functional units and other components 101, 115.

The data bus is for encoded samples and decoded samples. While the address bus is for addresses. Control signals travel on one of the busses, but Burns does not say which one. It is not clear where the samples come from but it would seem that they would come from a tuner. The device 100 in Burns is not a tuner but a decoder.

While the channel decoding functional units of Burns are indicated as being subprocessors of the channel decoder 100, it is not clear from the specification why there are four nor exactly what each one does. It is, however, clear that they are different from each other (Col. 5, line 62 to Col. 6, line13.) The Summary paragraph starting at Col. 3, lines 19-37 also suggests that each one is required to accomplish a single decoding process, i.e. they all operate on the same input samples one after the other. Appellant do not see any suggestion that they are interchangeable or replaceable

In brief, Burns shows a Set-Top Box or TV that has the channel decoder that it needs to decode the signals for which it is designed. The decoders may also be reconfigurable to accept samples with different timings and word lengths.

Turning to the combination, Tajima is a published unexamined Japanese patent application filed back in 1992. Apparently, the Appellant did not consider it important to prosecute even in Japan. The Examiner has found nothing similar over the subsequent 15 years. This would suggest that it is not obvious to modify Tajima in any way.

The Examiner has proposed that Burns invites the addition of address and data buses onto the modules of Tajima. However, this is neither straightforward nor would it be sufficient to meet e.g. Claim 1. Tajima has an antenna input connector and an analog

A/V output connector. It is difficult to see how an address bus would be used, since the analog A/V output is simply provided directly to the switch 22.

The modification needed by the Examiner would require first that the data bus of Burns used for a decoder system be applied to the tuners in Tajima. This, in itself, does not seem obvious. Next the data bus of Burns would be used only for output data and control signals. It would not be used for input data, instead the antenna connector of Tajima must be retained. Next, the other functions of the data bus in Burns that allow intercommunication between the functional units, the memory blocks and the communications unit would be removed. In addition, the address bus must be removed since it has no analog in the rejected claims. For the command and control signals of the rejected claims, the control signals from Burns would also be retained and carried on the data bus, although Burns does not say which bus is used. However, the control signals would not be used to reconfigure the decoders as in Burns, but instead for command and control signals (not shown in either reference but perhaps used somewhere in Milne). Finally, the modules would have to be converted to cartridges as discussed in more detail below.

Appellant respectfully submit that such a careful selection of elements would not be obvious. The modification required by the Examiner is not simply a conversion from a standard wire interface of Tajima to a standard wire interface of Burns. It is a complex and complete repurposing of Tajima to accomplish something completely new.

Finally, Appellant notes that the Examiner's combination does not include all of the elements in e.g. Claim 1. Several components have to be modified to meet the claims in a way that is neither anticipated nor obvious from the references without the benefit of hindsight. Primarily, the Burns approach has a two way (in/out) data bus for sample, memory access, processor intercommunication etc., while Claim 1 has a first bus

connector for modulated signals to the tuner and a second bus connector for baseband signals from the tuner and also control signals.

**B. Tajima/Burns Does Not Show a Baseband Bus**

The Examiner responds that "the combination of Tajima/Burns discloses a removable module/tuner system which receives/processes a modulated signal which is then demodulated (i.e. baseband) for display." In fact, Tajima demodulates signals to analog composite signals. There is no baseband. In 1992, the signals may well stay in an analog form through the whole process. Even if there was an A/D followed by a D/A, the rejected claims have external bus connectors which would not be present in Tajima. Tajima's baseband would be entirely contained within the module.

Burns would appear to take in encoded baseband samples and produce decoded baseband samples. Since they are on the same bus and combined with control and other signals, Appellant have inferred, but do not know that they may be baseband. There is no modulation or demodulation in Burns.

So neither reference shows taking a modulated signal to baseband. It is further not a case of one reference taking signals one part of the way and the other reference taking the signals the rest of the way. Accordingly, Appellant asserts that the combination also does not show taking a modulated signal to baseband.

**C. Tajima's Modules are not Cartridges as Defined in the Claims**

While the Examiner appears to disagree, it would also appear that the Examiner has withdrawn the rejection of Claims 4-8. Appellant thank the Examiner for this recognition of allowable subject matter.

Claims 6 and 8 (allowed) refer to specific physical features of the claimed cartridge. These features also are recited in claim 9.

**D. Tajima's Modules Do Not have a Housing as Defined in the Claims**

The Examiner's response would appear to assert first that Tajima shows a cartridge and second that a cartridge is shown in the newly cited reference "Choi" (U.S. Patent No. 5,752,757.)

As to the first point, considering, for example, Claim 9, the "tuner cartridge" comprises the "housing to enclose the tuner." While this claim may be read broadly, the Examiner appears to be reading it as the tuner cartridge comprising part of the housing to enclose part of the tuner and then the remainder of the housing being comprised by a television main body. This reading adds additional matter to the claim and Appellant submits that it is in error.

As to Choi, it shows a subscription fee card 16 that enters a slot 18 as prior art. A subscription fee card is not a tuner. It is not clear what the Examiner is referring to as admitted prior art, however, the point remains that the prior art does not show a "tuner cartridge comprising... a housing to enclose the tuner." Choi does not change this.

The Examiner's remaining points in the Examiner's Response are not understood.

**E. The Discrete Cartridge with Housing, Grips, Edge Connectors, etc. is Unique**

Appellant respectfully submits that the present invention presents a solution that has been heretofore unknown. While Tajima may have identified a problem, Tajima's solution was impractical, unsafe for consumers (due to the exposed surfaces and bus connectors), and inconvenient to use. (Note that in Figure 1, there are 5 different power switches 211, five different power pilot lamps 212, and 2 different remote control sensors 213). Tajima's solution has gone nowhere in the 15 years since its filing.

The present inventors present a new solution with a new set of interfaces and in some claims a new safer, more convenient physical form. The resulting tuner cartridge is safe convenient, self-installing and integrated into the system architecture.

### **VIII. CONCLUSION**

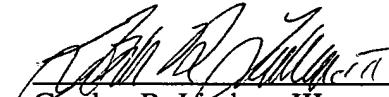
Appellant respectfully submits that all appealed claims in this application are patentable and were improperly rejected by the Examiner during prosecution before the United States Patent and Trademark Office. Appellant respectfully requests that the Board of Patent Appeals and Interferences overrule the Examiner and direct allowance of the rejected claims.

Please charge any shortages and credit any overpayments to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: March 31, 2008



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